

What is claimed is:

1. A surface plasmon resonance measuring chip for use in a surface plasmon resonance measurement apparatus constituted of a light source for emitting a light beam; an optical system for making said light beam enter a dielectric block at various angles of incidence so that a condition for total internal reflection is satisfied at an interface between said dielectric block and said metal film; and photodetection means for detecting the intensity of said light beam satisfying total internal reflection at said interface to detect surface plasmon resonance; comprising:

a dielectric block;

a metal film, formed on a surface of said dielectric block, for placing a sample thereon;

wherein said dielectric block is formed as a single block that includes an entrance surface which said light beam enters, an exit surface from which said light beam emerges, and a surface on which said metal film is formed;

said metal film is united with said dielectric block;

and

said dielectric block is formed from a synthetic resin in which, when said light beam is p-polarized outside said dielectric block and then strikes said interface, the intensity of an s-polarized component at said interface is 50% or less of the intensity of said light beam at said interface.

2. The surface plasmon resonance measuring chip as

set forth in claim 1, wherein said dielectric block is formed from a synthetic resin in which, when said light beam is p-polarized outside said dielectric block and then strikes said interface, the intensity of a s-polarized component at said interface is 30% or less of the intensity of said light beam at said interface.

3. The surface plasmon resonance measuring chip as set forth in claim 1, wherein said dielectric block is formed from a synthetic resin in which, when said light beam is p-polarized outside said dielectric block and then strikes said interface, the intensity of a s-polarized component at said interface is 10% or less of the intensity of said light beam at said interface.

4. The surface plasmon resonance measuring chip as set forth in claim 1, wherein said synthetic resin is a synthetic resin that is selected from polymethylmethacrylate, a cycloolefin polymer, or a cycloolefin copolymer.

5. The surface plasmon resonance measuring chip as set forth in claim 2, wherein said synthetic resin is a synthetic resin that is selected from polymethylmethacrylate, a cycloolefin polymer, or a cycloolefin copolymer.

6. The surface plasmon resonance measuring chip as set forth in claim 3, wherein said synthetic resin is a synthetic resin that is selected from polymethylmethacrylate, a cycloolefin polymer, or a cycloolefin copolymer.

7. The surface plasmon resonance measuring chip as set forth in claim 1, wherein a sensing medium that exhibits a coupling reaction with a specific substance in said sample

is fixed on said metal film.

8. The surface plasmon resonance measuring chip as set forth in claim 2, wherein a sensing medium that exhibits a coupling reaction with a specific substance in said sample is fixed on said metal film.

9. The surface plasmon resonance measuring chip as set forth in claim 3, wherein a sensing medium that exhibits a coupling reaction with a specific substance in said sample is fixed on said metal film.

10. The surface plasmon resonance measuring chip as set forth in claim 4, wherein a sensing medium that exhibits a coupling reaction with a specific substance in said sample is fixed on said metal film.

11. The surface plasmon resonance measuring chip as set forth in claim 5, wherein a sensing medium that exhibits a coupling reaction with a specific substance in said sample is fixed on said metal film.

12. The surface plasmon resonance measuring chip as set forth in claim 6, wherein a sensing medium that exhibits a coupling reaction with a specific substance in said sample is fixed on said metal film.

13. A method of manufacturing a surface plasmon resonance measuring chip for use in a surface plasmon resonance measurement apparatus constituted of

a light source for emitting a light beam;

an optical system for making said light beam enter a

dielectric block at various angles of incidence so that a condition for total internal reflection is satisfied at an interface between said dielectric block and said metal film; and

photodetection means for detecting the intensity of said light beam satisfying total internal reflection at said interface to detect surface plasmon resonance;

wherein said dielectric block is formed as a single block that includes an entrance surface which said light beam enters, an exit surface from which said light beam emerges, and a surface on which said metal film is formed; comprising the step of:

manufacturing the measuring chip with said dielectric block being formed integrally with said metal film by positioning a resin introducing gate in a position that faces the surface of the mold that defines the surface on which said metal film is to be formed and forming said block by injection molding.